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Fig.1

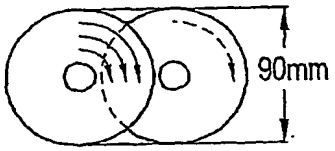


Fig.2

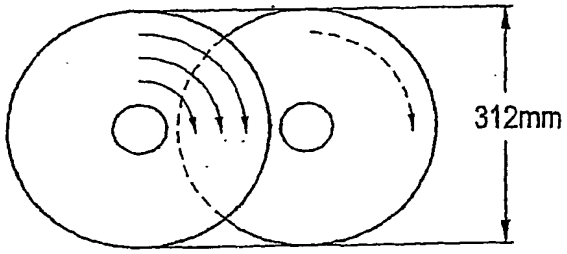
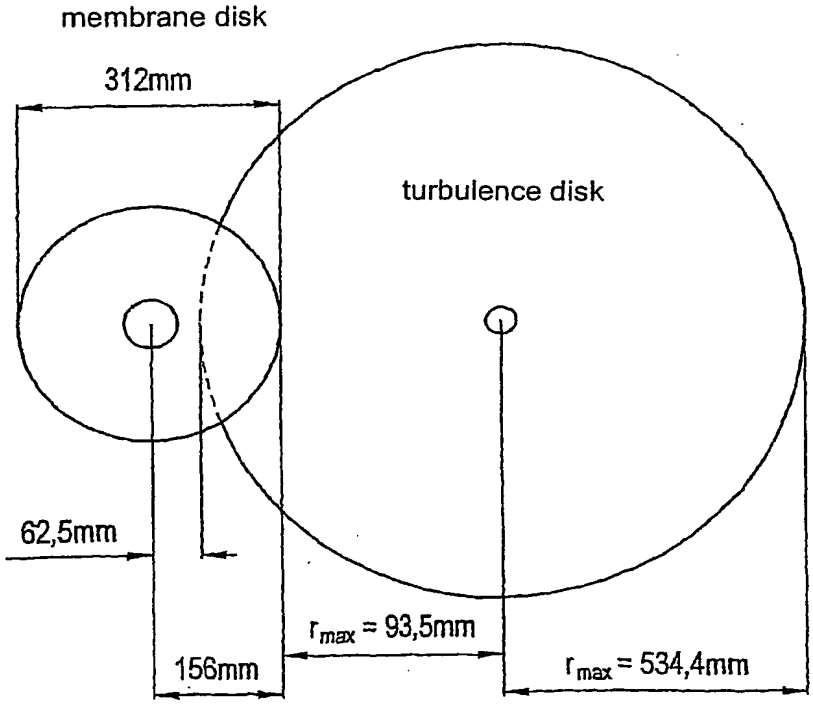


Fig.3

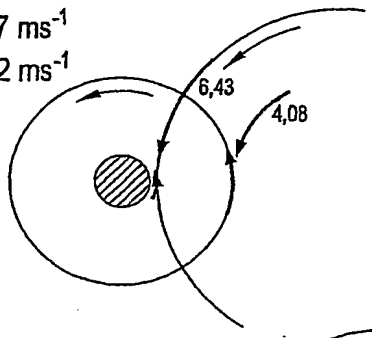


membrane disk ϕ 312mm

$n = 4\ s^{-1}$
$V_{min} = 1{,}57\ ms^{-1}$
$V_{max} = 3{,}92\ ms^{-1}$

turbulence disk

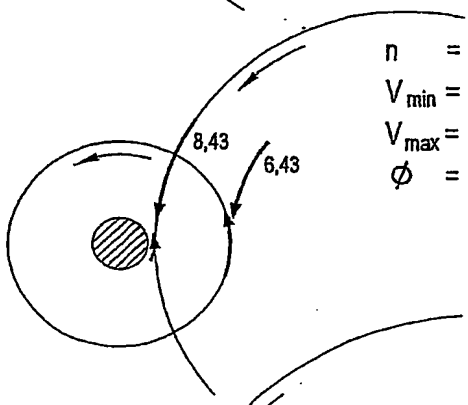
$n = 4$
$V_{min} = 4{,}08\ ms^{-1}$
$V_{max} = 6{,}43\ ms^{-1}$
$\phi = 512\ mm$



$\Delta V = 8$ m/s

Fig.4

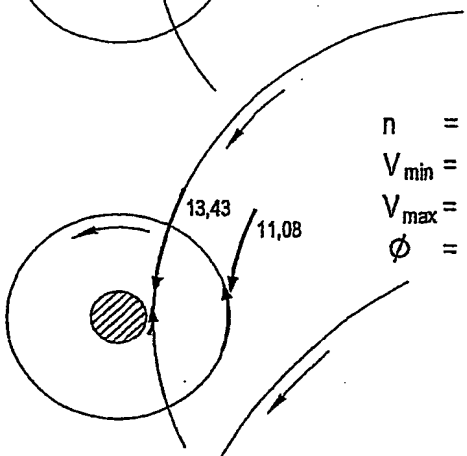
$n = 3{,}4$
$V_{min} = 6{,}43\ ms^{-1}$
$V_{max} = 8{,}43\ ms^{-1}$
$\phi = 788\ mm$



$\Delta V = 10$ m/s

Fig.5

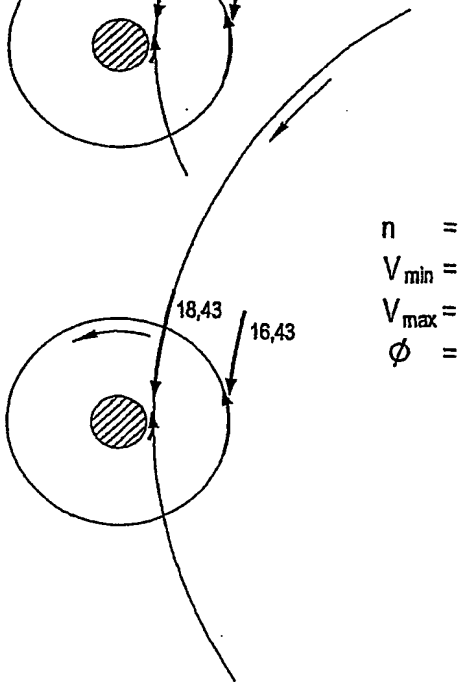
$n = 4$
$V_{min} = 11{,}08\ ms^{-1}$
$V_{max} = 13{,}43\ ms^{-1}$
$\phi = 1070\ mm$



$\Delta V = 15$ m/s

Fig.6

$n = 3{,}4$
$V_{min} = 16{,}43\ ms^{-1}$
$V_{max} = 18{,}43\ ms^{-1}$
$\phi = 1724\ mm$



$\Delta V = 20$ m/s

Fig.7

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example for practical application

requirements: p_z = 0,15 bar
ΔV = 10 ms^{-1}

membrane disk: ϕ = 312 mm
n = 4 s^{-1}
V_{min} = 1,57 ms^{-1}
V_{max} = 3,92 ms^{-1}

turbulence disk: ϕ = 671 mm
n = 4 s^{-1}
V_{min} = 6,08 ms^{-1}
V_{max} = 8,43 ms^{-1}

Fig.8
top view

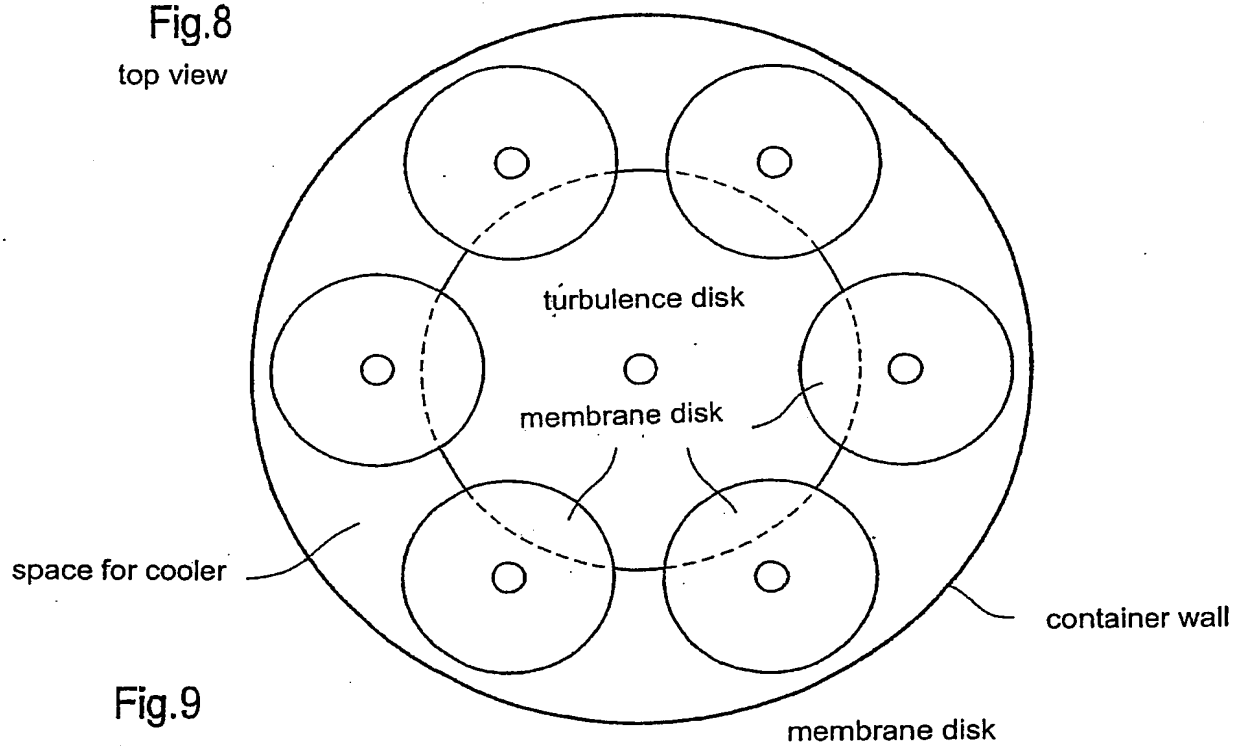
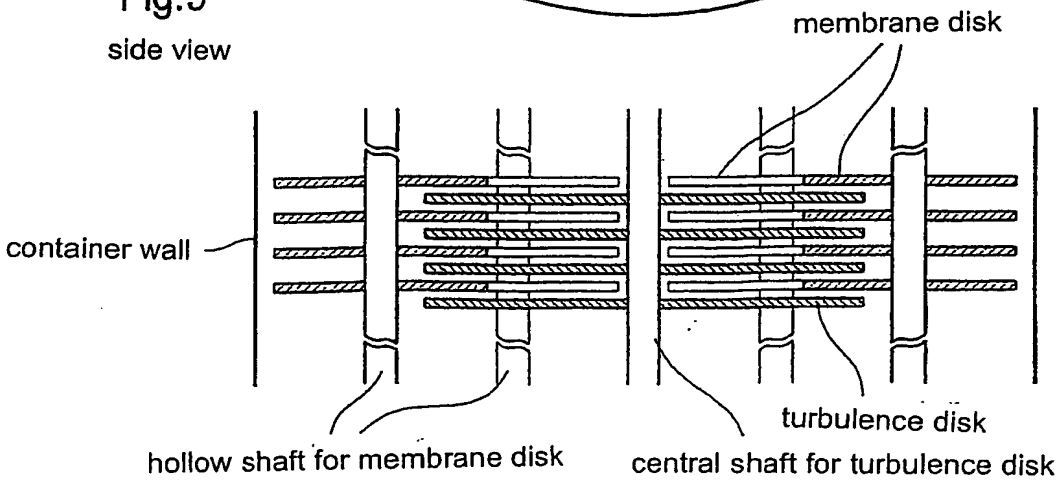
Fig.9
side view